

INDEX TO PLAN SET

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**CITY OF ABILENE, TEXAS
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION**

SPECIFICATIONS USED FOR THIS PROJECT ARE FROM THE
"CITY OF ABILENE STANDARD SPECIFICATIONS FOR CONSTRUCTION"
ADOPTED JANUARY 2001
REVISED SEPTEMBER 2006

FUNDING: 2015 BOND
ACTIVITY NUMBER: E2869
PROJECT DURATION: 40 WORKING DAYS

All curb ramps and pertinent designs are in reasonable compliance with Texas Accessibility standards and the Americans with Disabilities Act.

**OLD ANSON RD. OVERLAY PROJECT
AMBLER AVE. TO W. STAMFORD ST.
PROJECT LENGTH 5,721'**

COUNCIL

SHANE PRICE WELDON HURT
BRUCE KREITLER KYLE MCALISTER
DONNA ALBUS STEVE SAVAGE

MAYOR

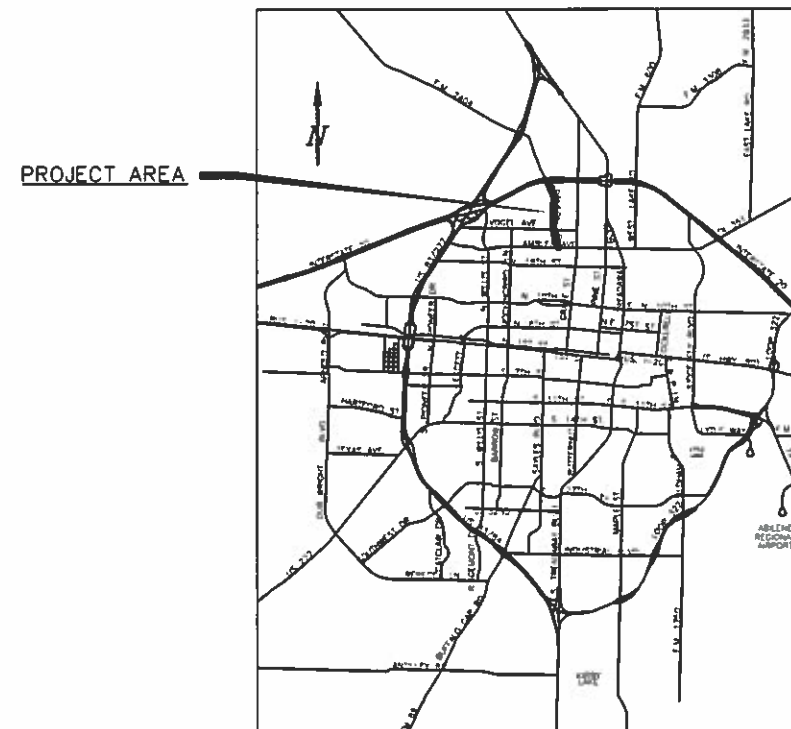
ANTHONY WILLIAMS

CITY MANAGER

ROBERT HANNA

DIRECTOR OF PUBLIC WORKS

MICHAEL G. RICE, P.E.



PROJECT LOCATION MAP

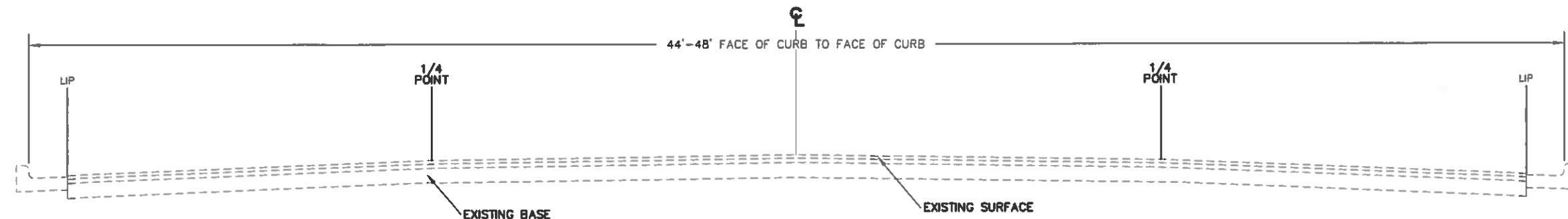
EROSION CONTROL REQUIREMENTS:
A determination has been made that this project/development is not subject to the requirements of the Texas Commission on Environmental Quality TPDES Construction General Permit TXR150000 as it will involve less than one acre of disturbed soil and is not part of a larger common plan of development equal to or greater than one acre. However, City of Abilene requirements for an erosion control plan and implementation of controls to prevent sediment introduction into the City's drainage way are still necessary. Questions concerning these requirements may be addressed to the City of Abilene's Engineering Division at 325.676.6281.



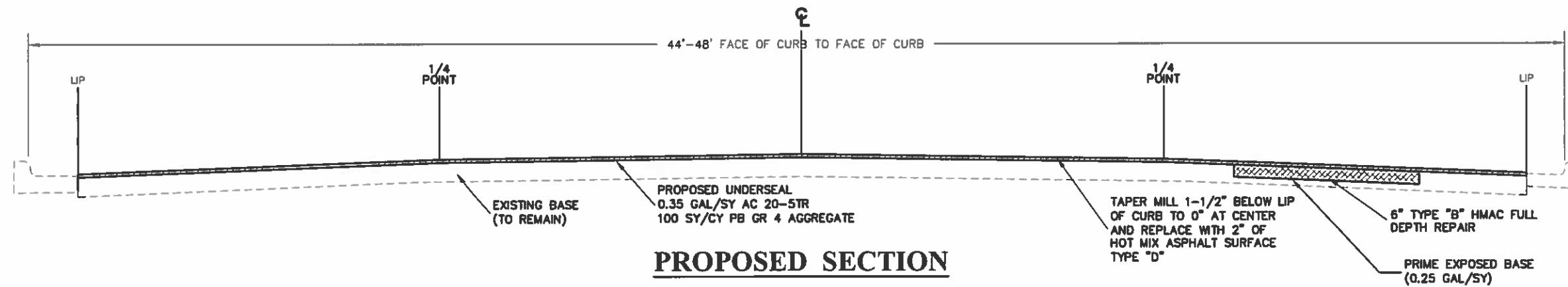
CITY ENGINEER

LARRY M. WRIGHT, P.E.

Larry M. Wright
DATE 11-17-17



EXISTING SECTION
OLD ANSON RD.



PROPOSED SECTION
OLD ANSON RD.

NOTES ON PROPOSED TYPICAL SECTION & WORK SEQUENCE FOR HMAC:

1. MILL EXISTING PAVEMENT.
2. REPAIR FAILED AREAS.
3. PLACE ONE COURSE SURFACE TREATMENT.
4. PLACE 2" TYPE "D" HMAC.

NOTES:

1. CONTRACTOR WILL BE PAID FOR THE QUANTITIES OF HOT MIX ASPHALT CONCRETE COMPUTED ON THE BASIS OF DESIGN SHOWN ON THE PLANS. QUANTITIES IN EXCESS OF COMPUTED QUANTITIES AS A RESULT OF UNCONTROLLED MILLING WILL NOT BE INCLUDED FOR PAYMENT.
2. HOT MIX MILLINGS GENERATED ON THIS PROJECT WILL BECOME PROPERTY OF THE CONTRACTOR.

STATE OF TEXAS
LARRY MARK WRIGHT
91225
PROFESSIONAL ENGINEER
Larry Mark Wright
11-17-17

Revision:	Date:

DESIGNED BY: L. WRIGHT DRAWN BY: M. MILLER CHECKED BY: L. WRIGHT	HORIZ. SCALE: NTS	DRAWING NAME: E2869
	VERT. SCALE: NTS	DATE: 08/2017
	REF. BK.	PG.
OLD ANSON RD. OVERLAY PROJECT TYPICAL STREET AND CURB & GUTTER CROSS SECTIONS		
CITY OF ABILENE, TEXAS PUBLIC WORKS DEPT./DESIGN SERVICES DIV.		
SHEET 2 OF 11		

GENERAL NOTES

1. ACCESS TO RESIDENCES AND BUSINESSES SHALL BE PROVIDED AT ALL TIMES.
2. THE CONTRACTOR SHALL APPOINT, IN WRITING, A SUPERINTENDENT FOR THIS PROJECT. THE SUPERINTENDENT SHALL BE AVAILABLE AT ALL TIMES.
3. CONTRACTOR MUST COORDINATE ONGOING CONSTRUCTION WITH OTHER CONSTRUCTION WITHIN THE LIMITS OF THE PROJECT AND ALTER HIS OPERATION AS NECESSARY.
4. ITEM 340 HOT MIX ASPHALT CONCRETE PAVEMENT. PROVIDE HOT MIX ASPHALT CONCRETE IN ACCORDANCE WITH CITY OF ABILENE STANDARD SPECIFICATIONS FOR CONSTRUCTION 2006. IF THE WEATHER CONDITIONS ARE FAVORABLE, THE CONTRACTOR MAY STOCKPILE HOT-MIX AND RE-HANDLE IT. CARE SHOULD BE EXERCISED, HOWEVER, TO PREVENT THE MIX FROM COOLING BELOW 270 DEGREES F.
- ASPHALT PAVEMENT WILL NOT BE PLACED IN STOCKPILES ON ANY OF THE NEWLY PLACED SURFACES. A STOCKPILE AREA INDEPENDENT OF THIS PROJECT WILL BE SELECTED.
- NO JOINTS WILL BE PERMITTED IN WHEEL PATHS. JOINTS GREATER THAN 1/4" WHEN CHECKED WITH A 4' STRAIGHT EDGE MUST BE REPLACED AT THE CONTRACTORS EXPENSE.
5. ITEM 354 PLANING AND/OR TEXTURING PAVEMENT (0"-3"). THIS ITEM SHALL GOVERN THE REMOVAL OF EXISTING PAVEMENT, MILLINGS SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
6. ITEM 500 MOBILIZATION. THIS ITEM SHALL GOVERN FOR THE ESTABLISHMENT OF OFFICE AND OTHER FACILITIES AT THE PROJECT SITE AND THE MOVEMENT OF PERSONNEL, CONSTRUCTION EQUIPMENT AND SUPPLIES TO THE PROJECT SITE OR TO THE VICINITY OF THE PROJECT SITE IN ORDER TO ENABLE THE CONTRACTOR TO BEGIN WORK ON THE OTHER CONTRACT ITEMS THAT WILL BE PERFORMED BY THE CONTRACTOR. THE COST OF THE PAYMENT BOND AND PERFORMANCE BOND ON PROJECTS THAT CANNOT BEGIN BECAUSE OF A CLOSED CONSTRUCTION SEASON OR FOR THE CONVENIENCE OF THE CITY WILL BE CONSIDERED PART OF THE MOBILIZATION ITEM UNDER THIS CONTRACT.
7. ITEM 502 BARRICADES, SIGNS, AND TRAFFIC HANDLING. THIS PROJECT REQUIRES THE CONTRACTOR TO INSTALL CONSTRUCTION BARRICADES, SIGNS, AND TRAFFIC HANDLING ON THIS PROJECT. THERE MAY BE OTHER MINOR SIGNS AND/OR TRAFFIC MARKINGS THAT ARE DEEMED NECESSARY TO PROTECT THE TRAVELING PUBLIC AND CONSTRUCTION EMPLOYEES. PAYMENT FOR MISCELLANEOUS MINOR SIGNS WILL BE INCLUDED IN THE PRICE BID FOR ITEM 502. ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE CURRENT TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD).
8. ITEM 529 CONCRETE CURB, GUTTER, AND COMBINED CURB AND GUTTER. THE PRICE BID FOR ITEM 529 WILL INCLUDE REMOVAL OF EXISTING CURB AND GUTTER, EXCAVATION TO GRADE UNDER EXISTING C&G AND 1'-0" BACK OF C&G, COMPACT SUBGRADE, PLACEMENT OF 3" BASE APPROVED BY THE ENGINEER, BACK-FILLING BEHIND THE CURB WITH ACCEPTABLE MATERIAL, PLACING 2 SACK CONCRETE, AND MATCH EXISTING SURFACE.
9. ITEM 637 ALUMINUM SIGN. THE CONTRACTOR SHALL PROVIDE SPECIFIED ALUMINUM SIGN AND POLE ASSEMBLY UNDER THIS ITEM, FINAL LOCATION OF SIGNS TO BE FIELD DETERMINED AND APPROVED BY THE TRAFFIC ENGINEER.
10. ITEM 810 RAISED PAVEMENT MARKERS. THE CONTRACTOR WILL BE REQUIRED TO TIE EACH END INTO AN EXISTING BUTTON PATTERN. BUTTON REMOVAL SHALL BE SUBSIDIARY TO ITEM 810, BUTTONS FABRICATED IN MEXICO WILL NOT BE PERMITTED. CROSSWALKS WILL BE 16" WHITE THERMOPLASTIC WITH LOCATION AND LAYOUT AS SHOWN ON PLANS. THE CONTRACTOR WILL BE RESPONSIBLE FOR WORKING WITH THE INSPECTOR TO REPLACE PAVEMENT MARKINGS USING THE SUPPLIED TRAFFIC BUTTON LAYOUT SHEETS.
11. CONTRACTOR SHALL SUBMIT A SEQUENCE OF WORK PLAN AND A CONSTRUCTION SCHEDULE FOR APPROVAL AT THE PRE CONSTRUCTION CONFERENCE. UPDATED CONSTRUCTION SCHEDULES WILL BE REQUIRED MONTHLY PRIOR TO PROGRESS PAYMENTS.
12. CONTRACTOR SHALL CORE ROADWAY AFTER CONSTRUCTION IS COMPLETE AT A RATE OF 1 CORE PER 1000' OF ROADWAY. COST IS SUBSIDIARY TO BID ITEM FOR HMAC. SEE ALSO THE TESTING REQUIREMENTS.
13. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN FOR THIS PROJECT.

* NOTES:

1. A 10% FIGURE OF TOTAL ROADWAY AREA FOR OLD ANSON RD. IS USED FOR CALCULATION OF FULL DEPTH REPAIR WHICH INCLUDES: EXCAVATION AND 6" TYPE "B" HMAC. ONLY ACTUAL QUANTITIES UTILIZED ON THE PROJECT SHALL BE PAID FOR.
2. 1,500 GAL OF PRIME IS TO BE UTILIZED ANYWHERE (INCLUDING FULL DEPTH AREAS) THAT EXPOSED BASE MATERIAL IS PRESENT. ONLY ACTUAL QUANTITIES UTILIZED ON THE PROJECT SHALL BE PAID FOR.

BASIS OF ESTIMATE					
ITEM	DESCRIPTION	RATE	AREA	QUANTITY	UNIT
316-1	SURFACE TREATMENT (ASPHALT)(AC-20-5TR)	0.35 GAL/SY	28,664.5	10,032.6	GAL
316-2	SURFACE TREATMENT (AGGREGATE)(TY-PB)(GR4)	100 SY/CY	28,664.5	286.6	CY
340-1	HOT MIX ASPHALT, TYPE "D" (2")	220#/Sq.Yd.	28,664.5	3,153.1	TON
340-2	HOT MIX ASPHALT, TYPE "B" (6")	660#/Sq.Yd.	2,866.5	946.0	TON

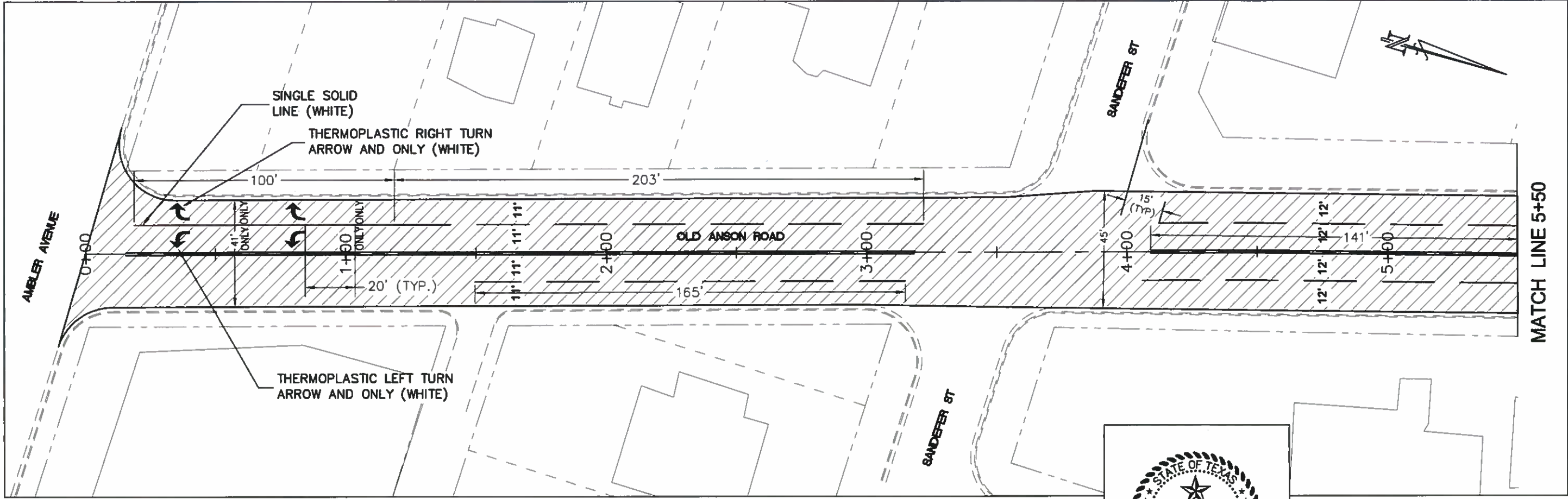
ESTIMATE OF QUANTITIES				
ITEM	DESCRIPTION	UNIT	TOTALS	
			ESTIMATED	FINAL
100	PREPARE R.O.W.	STA	57.21	
110	ROADWAY EXCAVATION	CY	477.8	
310	PRIME OIL (AEP)	GAL	1,500.0	
316-1	SURFACE TREATMENT (ASPHALT)(AC-20-5TR)	GAL	10,032.6	
316-2	SURFACE TREATMENT (AGGREGATE)(TY-PB)(GR4)	CY	286.6	
340-1	HOT MIX ASPHALT CONCRETE (TYPE D)(PG70-22)(2")	TON	3,153.1	
340-2	HOT MIX ASPHALT CONCRETE (TYPE B)(PG70-22)(6")	TON	946.0	
354	PLANING PAVEMENT	SY	28,664.5	
500	MOBILIZATION	LS	1.0	
502	BARRICADES,SIGNS,& TRAFFIC HANDLING	MO	2.0	
810-1	PAVEMENT MARKINGS	LS	1.0	
810-2	PAVEMENT MARKINGS (THERMOPLASTIC CROSSWALK)	EA	3.0	
810-3	PAVEMENT MARKINGS (THERMOPLASTIC LEFT ARROW)	EA	2.0	
810-4	PAVEMENT MARKINGS (THERMOPLASTIC RIGHT ARROW)	EA	2.0	
810-5	PAVEMENT MARKINGS (THERMOPLASTIC ONLY)	EA	4.0	

ITEM #	TESTING REQUIREMENTS
310	TxDOT PREQUALIFIED SOURCE
316-1	TxDOT PREQUALIFIED SOURCE
316-2	TEX 200 F PART 1 GRADATION 1 PER 1000 CY=1
340	TEX 207 IN PLACE AIR VOIDS (MAY USE CALIBRATED GAUGE WITH ENGINEER'S APPROVAL) 2 PER 500 TON=16 TEX 236 ASPHALT CONTENT & GRADATION 1 PER 500 TON=8
	*CONTRACTOR SHALL PROVIDE 1-B CERTIFIED TECHNICIAN FOR ALL PAVING OPERATIONS
810	TxDOT PREQUALIFIED SOURCE

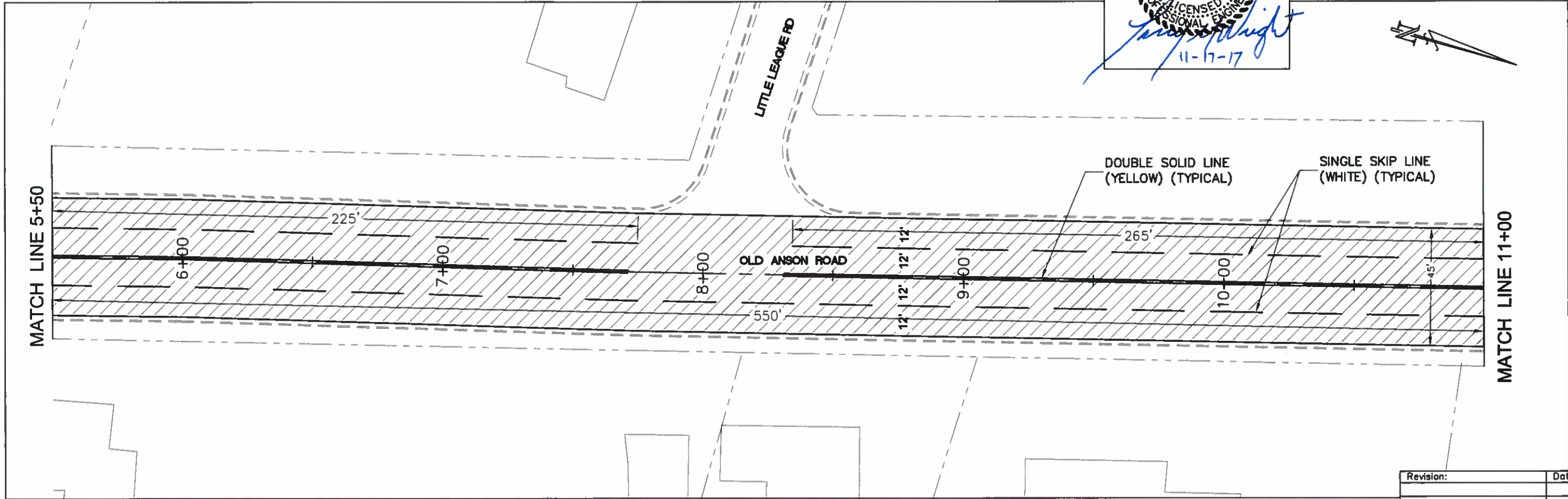
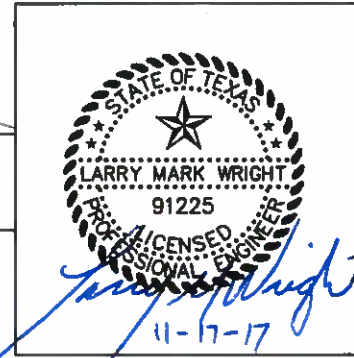


11-17-17

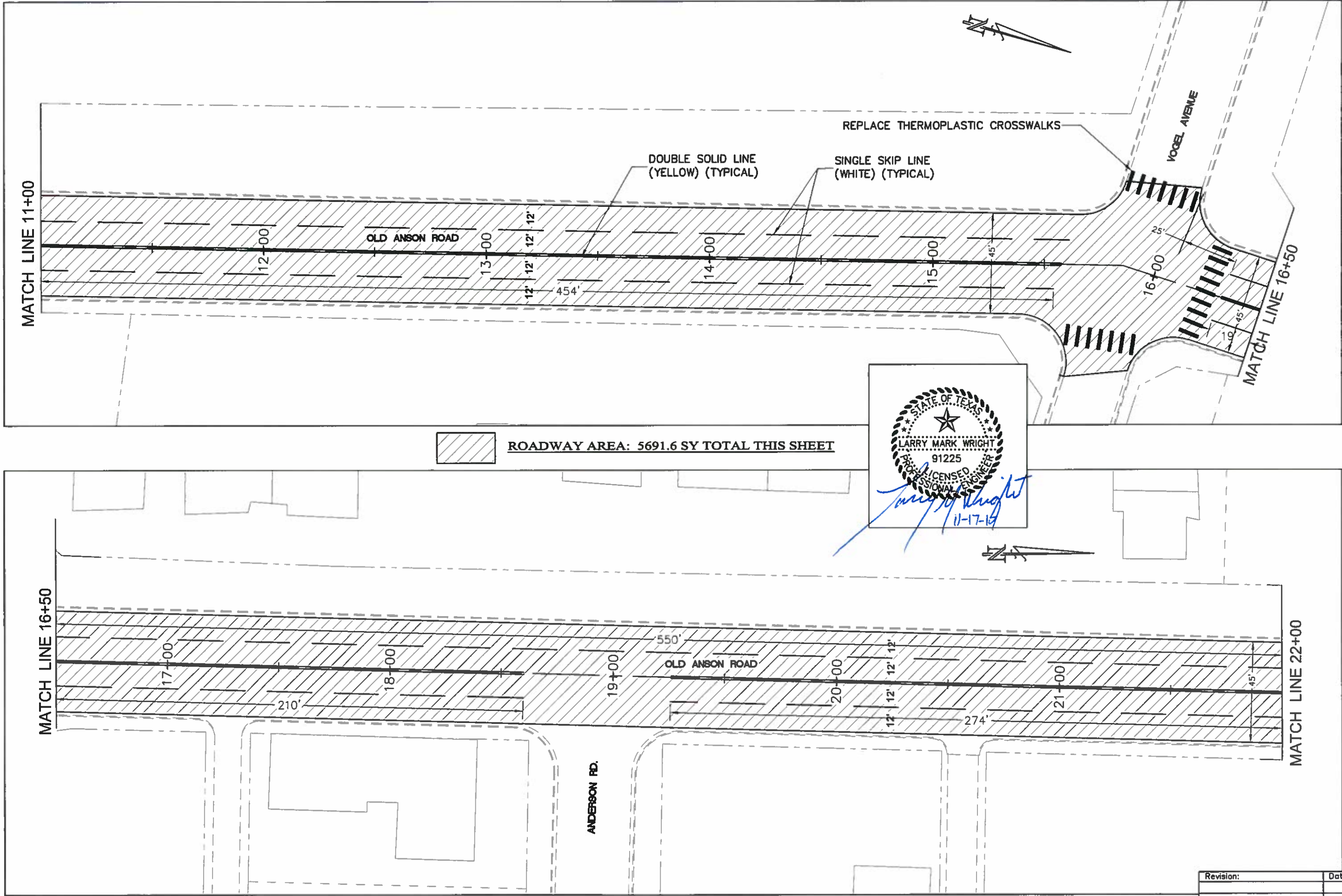
Revision:	Date:



ROADWAY AREA: 5367.1 SY TOTAL THIS SHEET



Revision:	Date:



Revision:	Date:

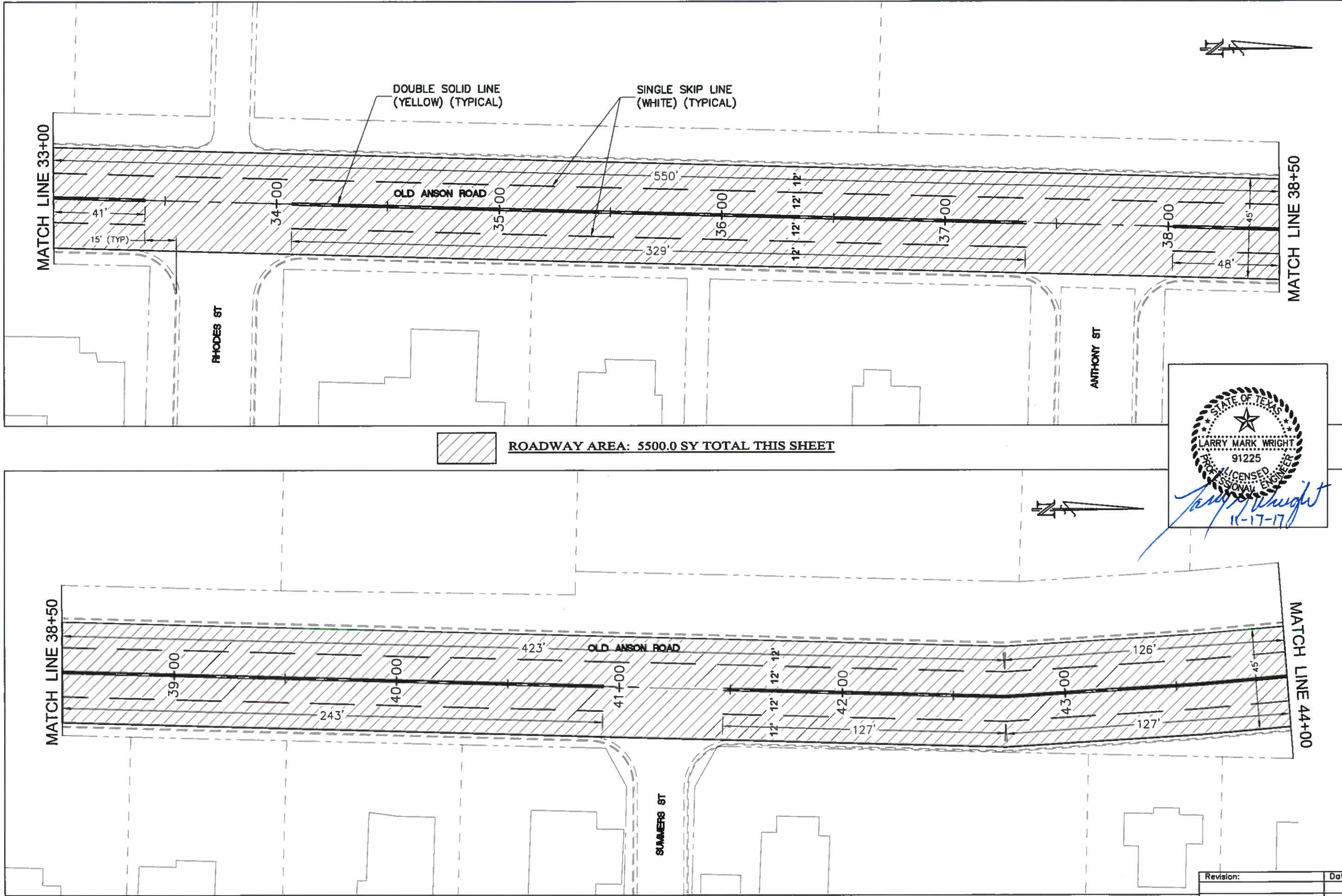
CITY OF ABILENE, TEXAS
PUBLIC WORKS DEPT./ENGINEERING DIV.

OLD ANSON RD. OVERLAY PROJECT
CONSTRUCTION PLAN

DESIGNED BY: L. WRIGHT
DRAWN BY: M. MILLER
CHECKED BY: L. WRIGHT

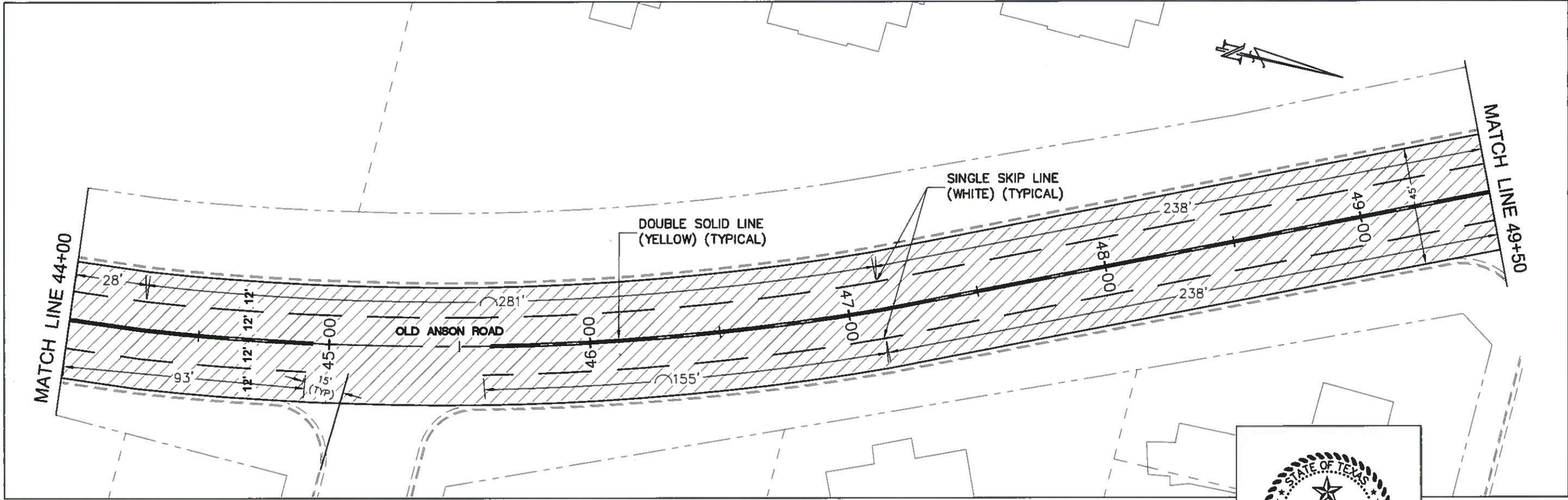
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VERT. SCALE: NONE

DRAWING NAME:
E2869
DATE: 08/2017

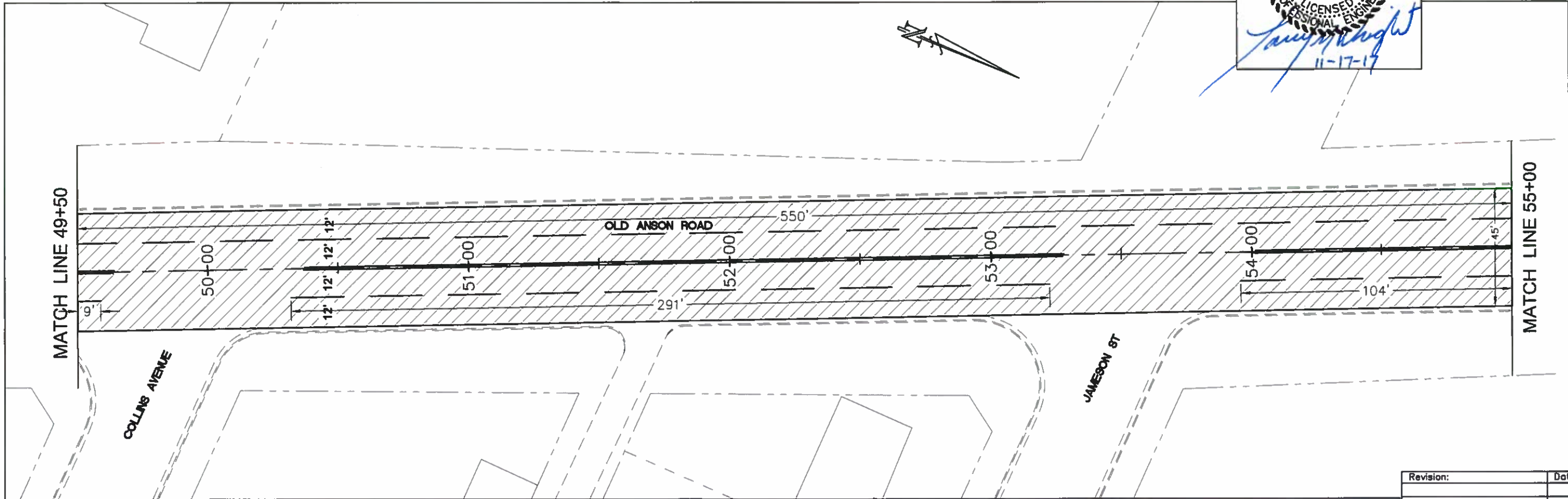
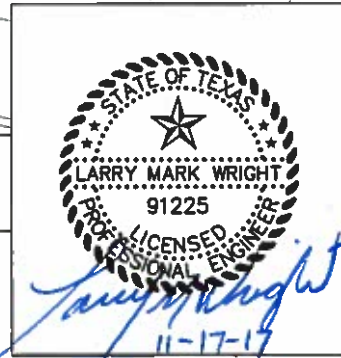


Revision:	Date:

CITY OF ABILENE, TEXAS PUBLIC WORKS DEPT./ENGINEERING DIV.	OLD ANSON RD. OVERLAY PROJECT CONSTRUCTION PLAN		DESIGNED BY: L. WRIGHT	HORIZ. SCALE: 1:40	DRAWING NAME: E2869
			DRAWN BY: M. MILLER	VERT. SCALE: NONE	
			CHECKED BY: L. WRIGHT		DATE: 08/2017



ROADWAY AREA: 5500.0 SY TOTAL THIS SHEET



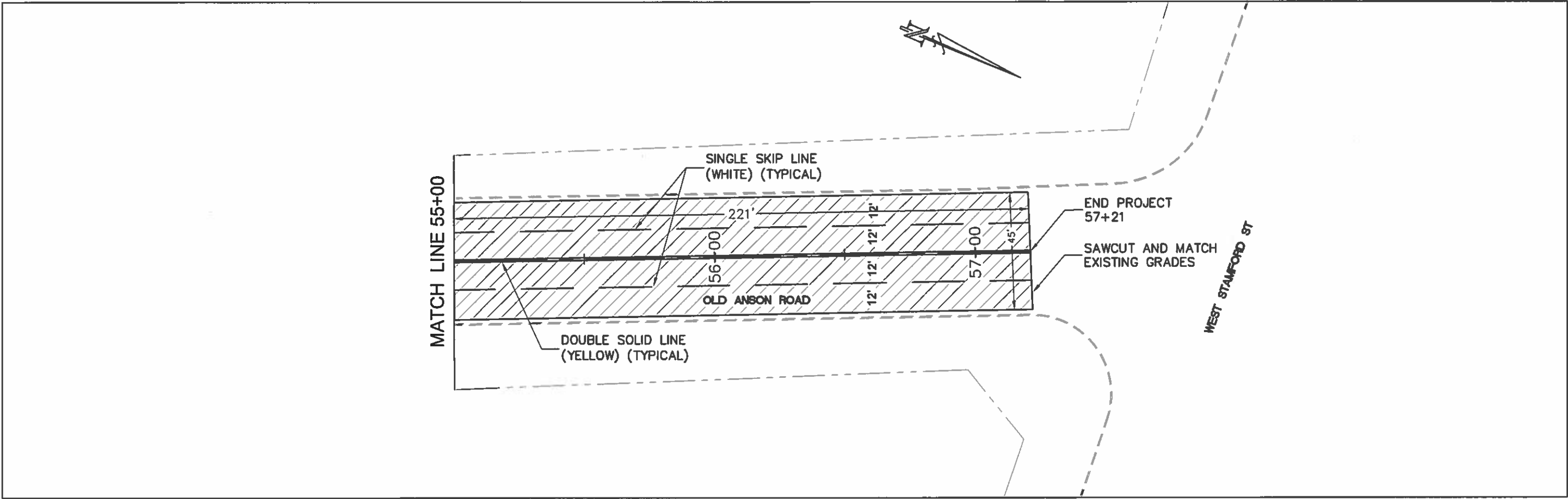
Revision:	Date:

CITY OF ABILENE, TEXAS
PUBLIC WORKS DEPT./ENGINEERING DIV.

OLD ANSON RD. OVERLAY PROJECT
CONSTRUCTION PLAN

DESIGNED BY: L. WRIGHT
DRAWN BY: M. MILLER
CHECKED BY: L. WRIGHT

HORIZ. SCALE: 1"=40'
VERT. SCALE: NONE
DRAWING NAME: E2869
DATE: 08/2017



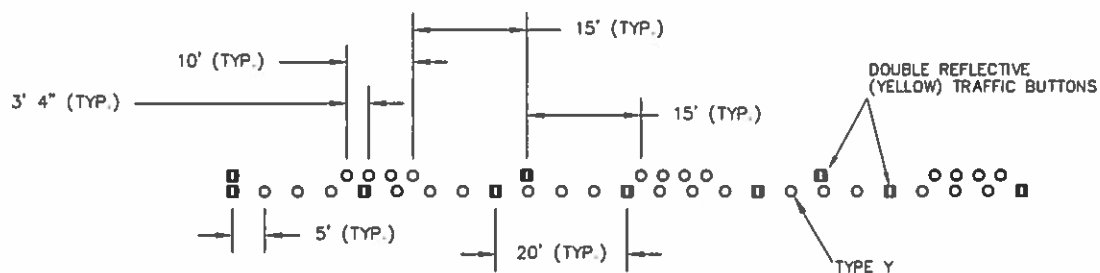
ROADWAY AREA: 1105.8 SY TOTAL THIS SHEET

WEST STAMFORD ST

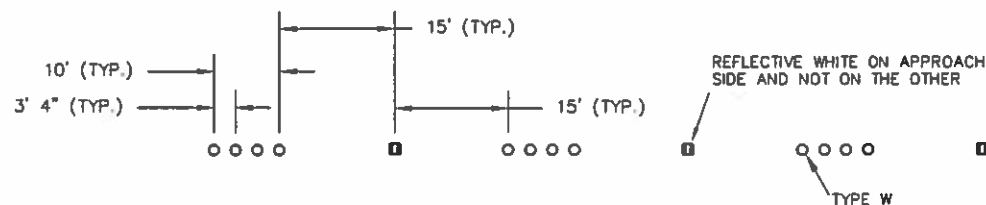


Revision:	Date:

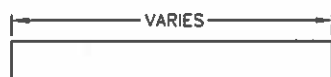
CITY OF ABILENE, TEXAS PUBLIC WORKS DEPT./ENGINEERING DIV.	OLD ANSON RD. OVERLAY PROJECT CONSTRUCTION PLAN		DESIGNED BY: L. WRIGHT	HORIZ. SCALE: 1:40	DRAWING NAME: E2869
			DRAWN BY: M. MILLER	VERT. SCALE: NONE	
			CHECKED BY: L. WRIGHT		DATE: 08/2017



STANDARD CONTINUOUS TWO-WAY LEFT TURN LANE (TWLTL) LINE PATTERN FOR RAISED PAVEMENT MARKERS
NOT TO SCALE



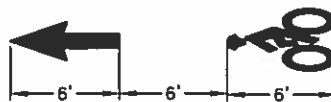
STANDARD SKIP LINE PATTERN FOR RAISED PAVEMENT MARKERS
NOT TO SCALE



STOP BAR SOLID LINE (16") (THERMOPLASTIC) (WHITE)
NOT TO SCALE



BICYCLE LANE SOLID LINE (4") (THERMOPLASTIC) (WHITE)
NOT TO SCALE



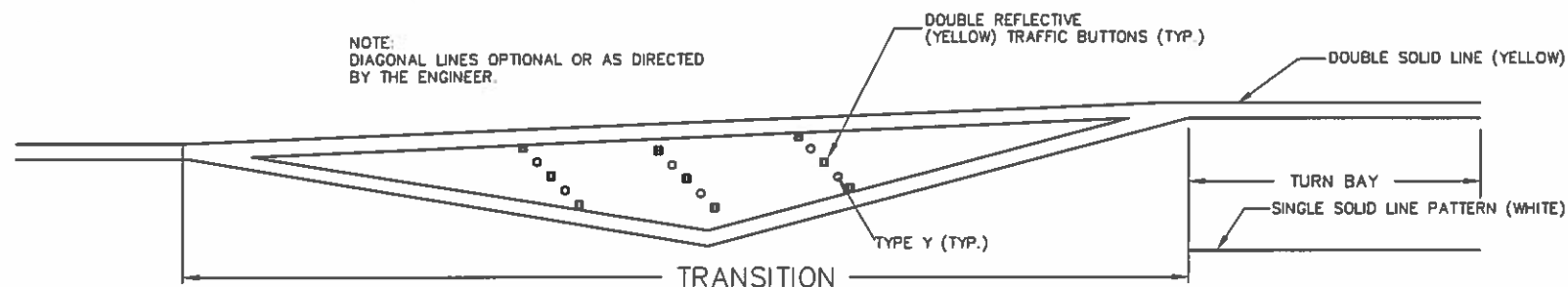
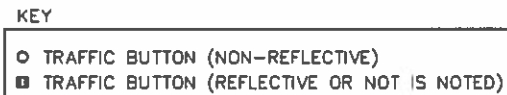
BICYCLE LANE MARKINGS (WHITE)
NOT TO SCALE



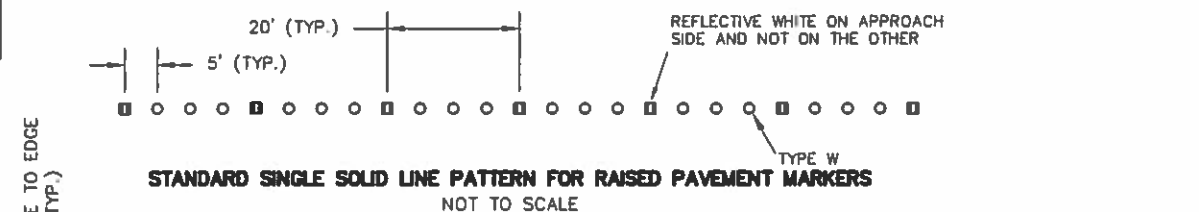
CROSSWALK (LONGITUDINAL BARS)
NOT TO SCALE

NOTES:

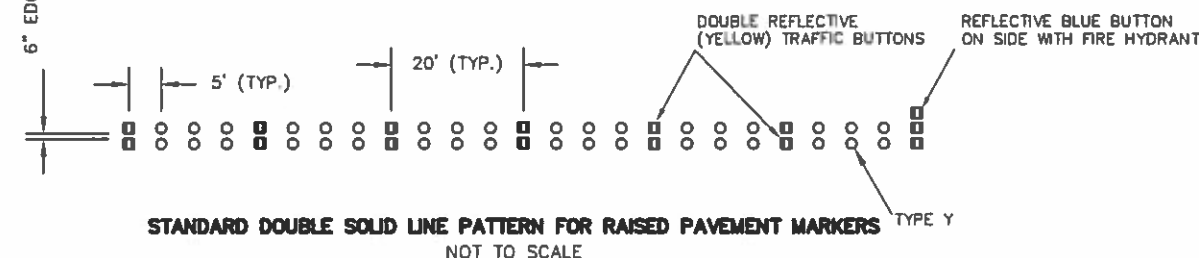
1. A SETBACK OF 15' IS REQUIRED ON EACH END OF THE BLOCK. SPACE ADJUSTMENT WILL HAVE TO BE MADE IN MOST CASES, TO PERMIT 15' SET-BACKS.
2. CERAMIC TRAFFIC BUTTONS SHALL BE USED HOWEVER BUTTONS FROM MEXICO WILL NOT BE USED. A SAMPLE OF EACH TYPE OF BUTTONS WILL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.
3. REFLECTIVE RAISED PAVEMENT MARKERS SHALL BE DOUBLE REFLECTIVE YELLOW FOR YELLOW LINES, REFLECTIVE WHITE ON THE APPROACH SIDE FOR STANDARD WHITE LINES AND WHITE ON THE APPROACH SIDE AND RED ON THE OPPOSITE SIDE FOR WHITE LANES ON SINGLE DIRECTION PAVEMENTS, I.E., ONE-WAY STREETS OR DIVIDED ROADWAYS.
4. PAVEMENT MARKING MATERIAL FOR THE STOP LINES, CROSSWALK LINES, DOTTED LINES AND SYMBOL MARKINGS SHALL BE HEAT-APPLIED, PREFORMED THERMOPLASTIC REFLECTIVE PAVEMENT MARKING TAPE, 125 MIL THICKNESS, PREMARK 20/20 FLEX OR APPROVED EQUAL. LINE WIDTH FOR TRANSVERSE PAVEMENT MARKINGS SHALL BE MINIMUM OF 16" UNLESS OTHERWISE NOTED.



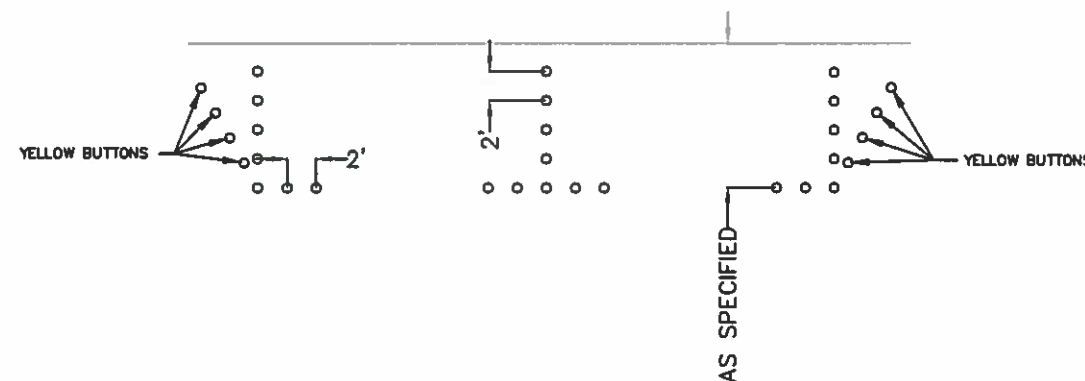
TYPICAL LEFT TURN CHANNELIZATION USING RAISED PAVEMENT MARKERS
NOT TO SCALE



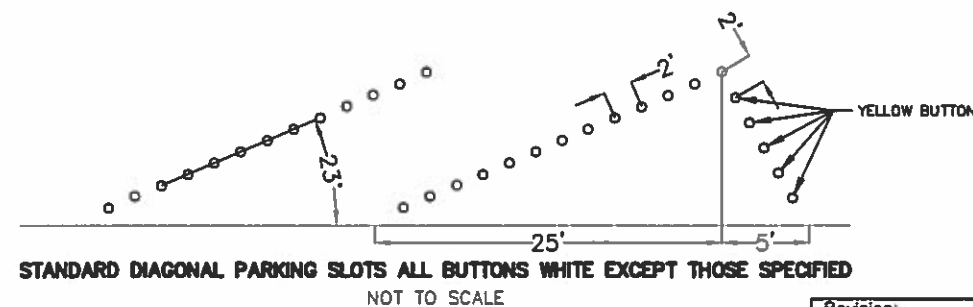
STANDARD SINGLE SOLID LINE PATTERN FOR RAISED PAVEMENT MARKERS
NOT TO SCALE



STANDARD DOUBLE SOLID LINE PATTERN FOR RAISED PAVEMENT MARKERS
NOT TO SCALE



STANDARD PARALLEL PARKING SLOTS ALL BUTTONS WHITE EXCEPT THOSE SPECIFIED
NOT TO SCALE



STANDARD DIAGONAL PARKING SLOTS ALL BUTTONS WHITE EXCEPT THOSE SPECIFIED
NOT TO SCALE

Revision:	Date:	SHEET 10
		OF 11

TRAFFIC CONTROL PLAN

The Contractor on this project will be required to submit a traffic control plan for each phase of this project. This plan will be in written or picture form and will be in compliance with the latest version of the Texas Manual on Uniform Traffic Control Devices for Streets and Highways (Part VI). Before work begins, the Traffic Control Plan has to be approved in writing by the Engineer. The approved plan will then become a part of the Contract.

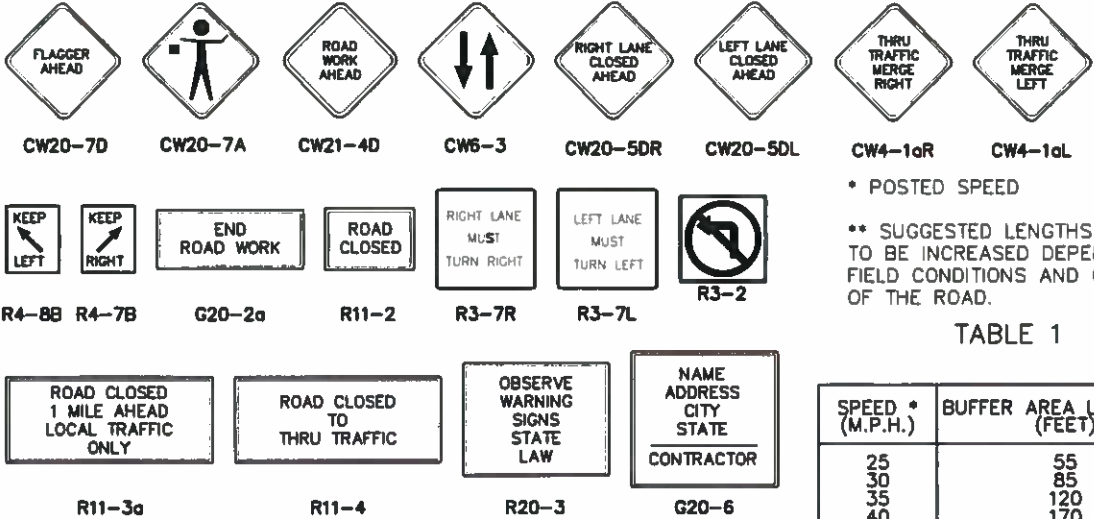
Any deviation from the approved Traffic Control Plan will void the acceptance of that plan and a corrected version will be submitted for approval.

No work will be performed until the Traffic Control Plan has been presented to the City of Abilene and has been approved in writing by the Engineer.

Any pedestrian routes that are affected by this project will require the same approval process as traffic. Pedestrian traffic that is moved from its normal path will be protected by an approved traffic control plan.

The Traffic Control Plan must have the following elements:

1. Carry two way traffic at all times.
2. Work on one half of the street at a time.
3. When work is performed across intersecting streets, handle traffic with flagmen or close street temporarily.
4. All driveways will open the same day they are closed, unless approved otherwise.
5. No residences will be denied access.
6. It is the Contractors responsibility to inform the residents a week in advance as to their plans. This will be done in writing and presented to the owner.
7. At the end of each day, the Contractor will make an inspection of the work area and correct all deficiencies that may exist in the work area as well as construction signs.
8. The Contractor will name a Contractor's Responsible Person (C.R.P.) to work with Inspection Services and to see that the Traffic Control Plan is adhered to. This C.R.P. will be designated in writing and presented at the Preconstruction Conference.
9. When the job requires flagmen to control the traffic, that flagman will be equipped with a white hard hat and legal reflective vest as well as a legal traffic control paddle to direct traffic. The flagman will be a person that can clearly communicate with the motorists.



WARNING SIGNS

GENERAL TRAFFIC NOTES :

1. Appropriate standard traffic control devices shall be used within the project limits to adequately warn, advise, control and guide traffic around and/or through all areas of work activity, detours and other potentially hazardous locations as required by the plans.
2. The traffic control devices used in the illustrations are examples only. Field conditions shall dictate the most appropriate traffic control devices to be used within a construction project.
3. Traffic control devices shall be in place only while work is actually in progress or a definite need exists.
4. Flashing warning lights and/or flags may be used to call attention to the early warning signs.
5. Devices used in a series for channelization purposes shall be supplemented with steady burn lights or delineators at night as needed.
6. All traffic control devices used at night shall be reflectorized or illuminated.
7. Formulas for taper are: $L = \frac{WS^2}{60}$ for speeds of 40 MPH or less
 $L = W \times S$ for speeds of 45 MPH or greater
Where: L = minimum length of taper
S = numerical value of posted speed limit prior to work or 85 percentile speed
W = width of offset
The taper types and the lengths of taper are as follows:

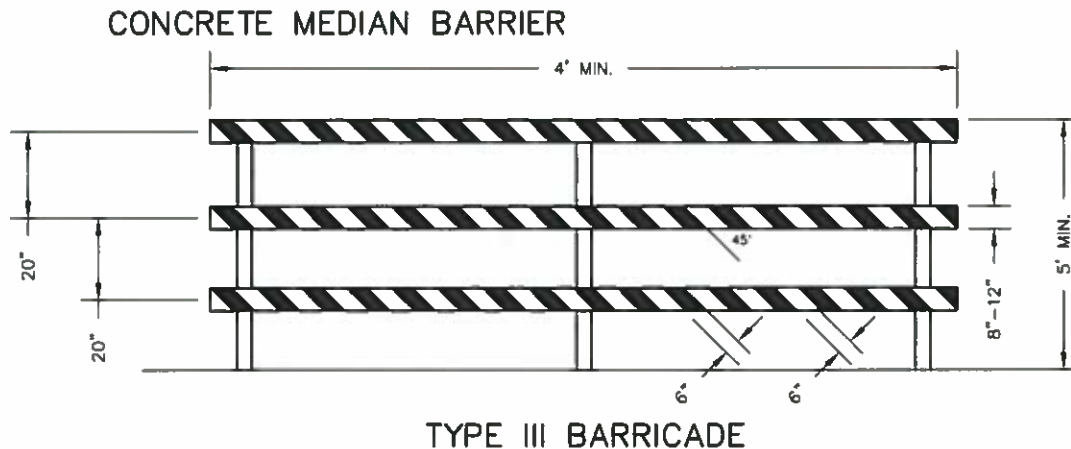
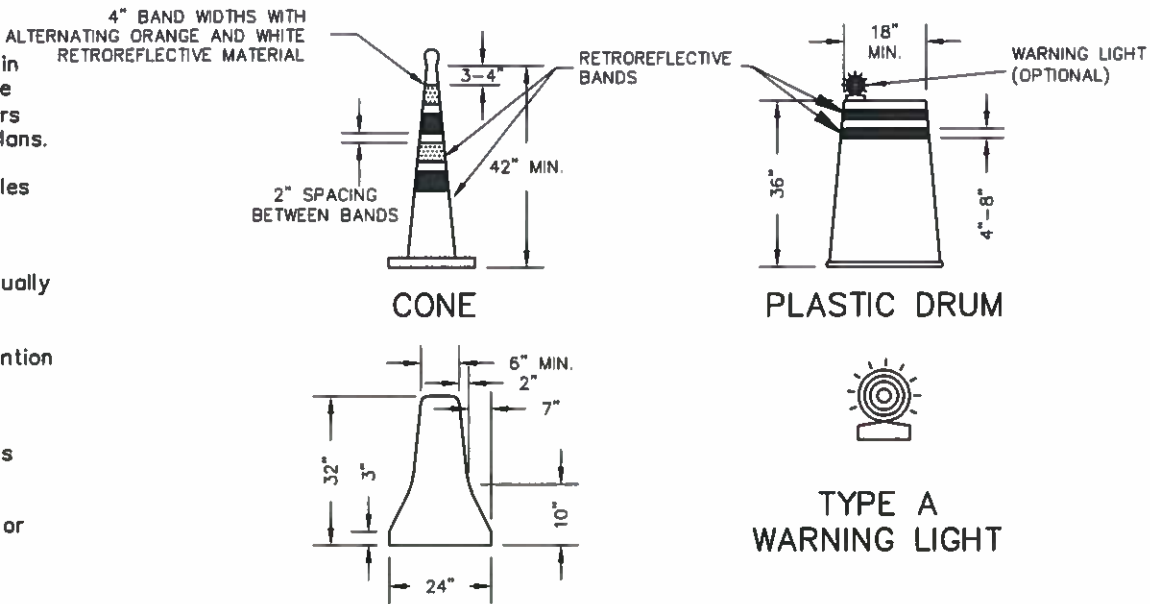
Taper type	Taper length
Upstream tapers	
Merging	L min.
Shifting	1/2 L min.
Shoulder	1/3 L min.
Two way traffic	100' max.
Downstream tapers	100' min.
8. The maximum spacing between channelizing devices in a taper section shall be approximately equal in feet to the speed limit. The maximum spacing between channelizing devices in a tangent section shall be approximately equal in feet to 2 to 2-1/2 times the speed limit.
9. All distances and spacings shown are approximate. Field adjustment may be necessary for some signs and traffic control devices. All adjustments will be approved by the Engineer.

TABLE 1

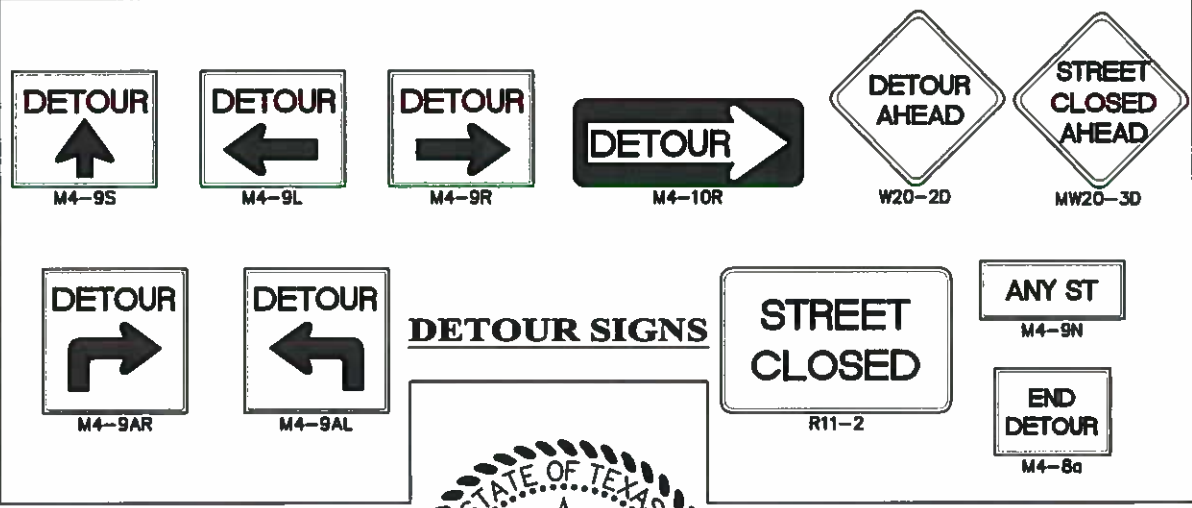
SPEED * (M.P.H.)	BUFFER AREA LENGTH ** (FEET)
25	55
30	85
35	120
40	170
45	220
50	280

TABLE 2

POSTED SPEED OR 85% SPEED (MPH)	X MINIMUM DISTANCE (FEET)
30 OR LESS	120
35	160
40	240
45	320



CHANNELIZING DEVICES



Revision:	Date: